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ABSTRACT

This document groups together the ideas about the difficulties, dangers, and challenges of the 21st century expressed by the International Commission on Education for the Twenty-First Century. In discussing constraints created by contemporary world history, the paper suggests that the development of the world economy and society is at present being strongly influenced by three phenomena that seem to be accelerating and that are beyond the control of any system: (1) demography; (2) the worldwide interdependence of official and private actions; and (3) scientific and technological progress. These three major changes are now combining and becoming simultaneous, foreshadowing great dangers for the beginning of the 21st century. The dangers clouding the approach of the 21st century are identified as: (1) the accelerated drift of the poor countries; (2) the marginalization of people with no hope of progress; (3) the break up of nation-states; and (4) the danger of the earth's destruction from problems other than the spread of local conflicts. Three challenges are posed: (1) harnessing science and technology to serve humanity and development, and building a way of life for the time set free; (2) adopting a global approach while showing regard for diversity; and (3) building the political context for national and international control of complex world developments. (DK)

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CONSTRAINTS, DANGERS AND CHALLENGES OF THE TWENTY-FIRST CENTURY

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SO 024 397

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International Commission on Education for the Twenty-first Century

Constraints, dangers and challenges of the twenty-first century[1]

by

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The physiognomy of the twenty-first century has already been moulded to a great extent by developments that started during the last few decades and seem irreversible, at least in the medium-term. These developments are not necessarily harmful but most frequently represent **difficulties** for national and international communities insofar as they do not have any self-regulatory mechanism and seem to be outside the scope of any institutional and political regulation. They are looked upon as unavoidable and lend legitimacy to very pessimistic expectations about the dangers that the world is at present facing. National and international leaders are therefore now faced with major **challenges** arising from the need to give a sense that is positive for man and humanity to these broad trends.

I. Constraints created by contemporary world history

The development of the world economy and society is at present being strongly influenced by three phenomena that seem to be accelerating and that are beyond the control of any system, namely, demography, the worldwide interdependence of official and private actions and scientific and technological progress.

I.1 Demography

The progress of medical science has fortunately made it possible to reduce infant mortality throughout the world. In so doing, it has also caused an explosion in the rates of population growth in the poorest countries despite, or no doubt because of, recurrent

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[1] At its first meeting, the Commission was anxious to put its work in a general context. This introductory note attempts to group together the ideas expressed about the difficulties, dangers and challenges of the twenty-first century and therefore offers a starting point from which the debate can continue.

poverty. Population growth rates in the developing countries are now over 2 per cent per year, which means an increase of one billion people in the world population between 1988 and the year 2000. The demographic boom seems to be all the greater when the level of income is low, and between 1980 and 1990, many African countries thus had growth rates of 3 to 4 per cent per year (4.2 per cent in Kenya and Côte d'Ivoire, 3.5 per cent in Somalia).

This acceleration in world demographic growth due to the developing countries has resulted in an increase in the proportion of young people in the population of those countries; and the poorer the country the more spectacular the increase is. Whereas the population under the age of 15 fell by 0.6 per cent in the developed countries between 1970 and 1990, it rose by 31 per cent in the developing countries, with Africa south of the Sahara holding the rejuvenation record with +89 per cent, while the young population has practically stabilized (+1 per cent) in Eastern Asia and Oceania, the newly industrializing region of the world.

Demographic forecasts for the beginning of the twenty-first century, despite assuming a fall in fertility in certain regions, predict a continuation of the trend towards an increase in the population under the age of 15. It is expected to rise by 26 per cent between 1990 and 2025 worldwide, but by 105 per cent in Africa south of the Sahara.

These trends already presage imbalances on two fronts in the population dynamics of the twenty-first century.

At the inter-generational level, it is clear that, for the poor nations, the burden of providing for these young people's food, education and health is becoming increasingly impossible to bear. GNP per capita has fallen in many countries and the dependency ratio (the population aged 0 to 14 and over 65 in relation to the population aged 15 to 65) has risen in such a way that there is no hope that local savings can be increased in order to make the necessary investments. In addition, the immediacy of the needs has led to the preservation of natural resources being disregarded and in some instances has even led to the land being tragically ravaged (as in the Sahel) so that the equilibria needed for subsistence have been shattered. These societies are also tending to lose their traditional reference points, based on a certain type of family regulation and habitat, particularly as a result of migrations to suburban areas.

Internationally, the pressure of young people from poor countries knocking on the doors of the ageing developed countries where few jobs are being created, is becoming fiercer and fiercer and is giving rise to outbursts of xenophobia.

I.2 **Worldwide interdependence of official and (or) private actions**

Imposed by the opening up of economic and financial frontiers as a result of the liberalism of the past few decades, and reinforced by the collapse of the Soviet bloc, the interdependence of economic, political and cultural activities is evident on several fronts:

- short-term and sometimes even very short-term interdependence imposed by the international money markets and by the foreign exchanges that spread any fluctuation immediately and dictate a de facto solidarity to monetary policies;

- economic interdependence, as a result of which the industrial crises of the most developed countries affect the whole world through the commodity markets and also by the decentralization of activities;

- interdependence of corporate strategies, consisting of fierce competition on the international markets and also of institutionalized co-operation in technological or commercial networks at the same time;

- interdependence of scientific and technological activities, which, after long having been of service to universal progress is becoming more and more affected by commercial competition over new products and new technologies;

- interdependence of ecological options. The consequences of human activities on the environment extend far beyond national frontiers and it can even be demonstrated that the distribution of the adverse effects of industrialization is very inequitable since it is often the least developed countries that are most affected;

- interdependence of cultural and political developments, reinforced by the new means of communication that standardize information worldwide add layer upon layer of it at a faster and faster pace without allowing time for it to be assimilated by the various cultures.

There are two sides to each of these various facets of interdependence - unbridled competition and widespread rivalry on the one hand, and co-operation and mutual understanding on the other. They bring people together in confrontation and at the same time in solidarity, but in the absence of codes firmly based on custom which would establish a social contract on a world scale, it seems that the twentieth century is coming to an end in the throes of intensified competition and savage selection much more than in the harmony of a co-operative society that shows regard for diversity.

I.3 Scientific and technological progress

After at least two centuries of universal faith in scientific progress there is, at the end of the twentieth century, a conflict between the freedoms won by humanity through its growing mastery of nature and the evils which this progress has gradually engendered and which humanity and the societies of the future will, it seems, be unable to escape. These problems can be clearly seen in the form of social costs.

- The most readily perceived social cost has been, since the 1960s, that of the increasingly rapid destruction of the natural environment. At the present pace of productivity, which is governed by modern technologies, what are called non-renewable resources, whether energy resources or arable land, are in danger of being rapidly exhausted. In addition, physics-, chemistry- and biology-based industries frequently produce pollutants which also destroy or disturb nature. These things, dealt with by economists under the heading 'external economies and diseconomies' are evidence of a clear discordance between productivity and well-being and, more generally, between technical progress and social progress.

- The most paradoxical social cost of this technological evolution has come insidiously to light in the most modern nations during the last few years. This is the unemployment or rather the 'unemployability' of a growing proportion of the active population of the developed countries. Over-systematically replacing people by innovating technical equipment which pushes productivity up unendingly, inevitably reduces the number of jobs.

This initially affected production work, with the replacement of unskilled workers by robots, and typists by word-processors, but it now affects some of the work of design and calculation (replacement of office staff by computers and technical specialists by computer-assisted design systems). There is a danger that the general introduction of artificial intelligence will cause this trend to spread right down the chain of skills.

In the very long term this will be a liberation. People should no longer have to earn their bread by the sweat of their brow. In the industrial societies based on work as a value, however, what is now happening is a revolution. Economies and societies have to find another way to organize the human life-span and provide another meaning for individual effort. They also have to give value to forms of participation in the community other than the provision of labour. This new pattern not having yet been found, nations are vying for the work available, which is tending to become a rare commodity.

These three major changes are now combining and becoming simultaneous, foreshadowing great dangers for the beginning of the twenty-first century.

II. The dangers clouding the approach of the twenty-first century

II.1 The accelerated drift of the poor countries

In the general state of crisis in the closing years of the twentieth century, the North-South divide between developed and developing countries has become both sharper and more complex. Some countries have emerged from under-development and joined the club of the most go-ahead countries in the world market (the dragons of the Pacific), while others are falling back, victims of the world situation and of endogenous processes in which population growth is combined with the effect of the short-term adjustment policies imposed by international organizations, which leave no hope for development in the long term. Sub-Saharan African, where the GDP is stationary while the population is growing at an increasing pace, thus devoted a smaller proportion of its GDP to education in 1988 than in 1980. While population control is partially dependent on education, as the example of the countries in the Pacific region seems to show, it is clear that in Africa, a vicious circle of impoverishment has appeared, which none of the nations concerned seems able to break.

II.2 The marginalization of people with no hope of progress

The problem is the same, whether in certain countries of the South or the East which are unable to compete internationally in the technological field and are in danger of forming pockets of poverty, despair and violence which it will be impossible to deal with by aid and humanitarian action, or in the social groups shut out of the socialization process that work represented in the industrialized societies. It is the problem of the increasingly sharply-defined dualism found in societies and in the international community. The pattern of competition and performance which now predominates in almost all fields of human activity combined with the global spread of the economic survival of the fittest is automatically producing a divide between winners and losers.

II.3 The break-up of Nation-States

Disordered competition between individuals, groups and national economic systems is undermining social cohesion and is threatening the balances historically arrived at on the basis of common values. The order imposed for decades by Communist ideology in Eastern Europe and Central Asia has already been replaced among the different peoples of the former USSR, by an attitude of 'every man for himself', which may rapidly degenerate into civil wars and economic and social regression. On other continents, particularly Africa, the danger is just as great that State frontiers may explode and give way to a patchwork of communities demanding their independence on the basis of ethnic and religious criteria which are often a cloak for economic rivalries.

In addition, cumulative poverty and the feeling of being a prey to intensified selfishness of the speculative and sometimes corrupt industrialized countries, are fuelling despair and violence among the very poor, calling into question the very idea of democracy and providing clients for the various 'churches' which foment obscurantism and intolerance.

The paradoxical danger which the Yugoslav conflict perhaps foreshadows is therefore that the world of the twenty-first century, more and more interdependent and therefore united in fact, and more and more informed if not learned, will be as anarchic, regressive and warlike as the disastrous fourteenth century in Europe, which also followed a period of spectacular scientific, technological and intellectual progress.

II.4 Beyond the spread of local conflicts, the danger of the earth's destruction

This danger has a variety of forms, making it all the more likely.

It may start with the proliferation of the destructive uses of new technologies, such as nuclear weapons. This increases the probability of the irresponsible use of these weapons themselves and markedly increases the danger of the all-out nuclear war that the great powers have been able to avoid for almost half a century.

It may also come from the use of new technologies by countries, people or institutions that do not have full control over their proper upkeep and security. The example of Chernobyl and the assessments of the nuclear installations of the former USSR which have been made since, prove that the danger exists, prove the irresponsibility of the decision-makers who created this situation but, more seriously still, prove that this type of decision is irreversible. It seems, in fact, impossible for the world's scientists, even at great expense, to obliterate the consequences of these mistakes. Science and technology for the repair of nature have not advanced at the same pace as science and technology for the production of economic commodities. It is to be feared that the same danger, resulting from the same difference, may exist for a number of applications of biotechnologies, and it is all the more dangerous as it often hides behind the mask of the "improvement" of animal and plant species, and even of the human species.

Lastly, in a more diffuse way, the circumstances of our life on earth are being imperilled by the waste products and destruction caused by the way we produce and consume. The growing scarcity of drinking water, the greenhouse effect, the emission of poisonous gases, and the transformation of the oceans into giant dustbins are all disquieting signs of a general lack of responsibility by present generations towards the survival of the people of the twenty-first century of whom, in fact, there will be many more needing food to eat and air to breathe.

Thus, everything that we tend at first sight to consider as beneficial for humanity, such as the victory of life over death, knowledge of each other, scientific progress and expanding productivity, may combine into a sinister scenario of material and moral regression, chaotic disintegration and even the death of our planetary village if humanity and human institutions do not manage to gain control of these complex changes. The challenges of the twenty-first century can thus be clearly seen today.

III. Challenges

III.1 Harnessing science and technology to serve humanity and development, and building a way of life for the time set free

Viewing the world from a purely quantitative standpoint, we can see that two forms of growth are coming together to condemn a number of human beings to starvation or to extreme poverty. These are, firstly, population growth in the poorer countries and, secondly, the growth of productivity - contributing to unemployment - in the industrialized countries. In both cases, science and technology appear to have worsened - not improved - the situation. By increasing the population in some places and taking away jobs in others, they are forcing individuals and nations to fight for a place in the sun and to compete in social dumping and trade wars. The scandal shows up starkly when we observe that in an interdependent world where communication has never been so easy, dire food shortages in the South exist at the same time as huge agricultural surpluses are choking the markets of the North.

The challenge thus facing tomorrow's scientists, governments and peoples can be summed up as follows: after using their intelligence and energy to take advantage of the resources of their environment and to control nature, human beings must now acquire he wisdom that will enable them to use this power in a beneficial and equitable way;

For the world as a whole, and more specifically for the developing countries, this means waging war on disease (especially AIDS, whose spread in Africa, for example, is a dramatic reminder of how population growth was regulated in Medieval Europe), and imparting to demography a conscious momentum that is compatible with human fulfilment, while simultaneously providing the appropriate infrastructure and technical capital needed for properly adapted development.

For the industrialized countries, this no doubt will require a redefinition of wealth. Instead of it being seen as a mere accumulation of material wealth based on human labour, it should be seen as more and more free time available for everyone as productivity increases, enabling people to develop and to build relationships with others in an entirely self-determined way. In the words of an anonymous disciple of Ricardo, whom Marx was fond of quoting (cf. André Gorz, "Bâtir la civilisation du temps libéré" in Le Monde Diplomatique, March 1993): 'wealth is freedom; free time, and nothing more'.

III.2 Adopting a global approach while showing regard for diversity

United without having intended to be - and often even without realizing it - with regard to the great dangers threatening the world, the different peoples would probably be wise first to consciously form a united front, in the short term in order to counteract together these dangers that none of them can overcome individually, and also, in a less defensive and more secular manner, in order to build together the kind of world to which scientific progress allows us to aspire. The danger, of course, is that this world approach may take the form of imperialist domination by the most powerful nation or nations. The

bipolar world order that came in after the Second World War must be replaced by a far more subtle one, made up of a multitude of instances of co-operation and a dynamic of conflict/convergence that shows regard for the wealth found in all the separate groups.

This raises the question of whether there exist universal values capable of creating such a convergence, without appearing like ideologies brought in from outside.

III.3 Building the political context for national and international control of complex world developments

The uncertainties and complexities of the modern world no longer allow us to harbour any illusions about the virtues of a rigid system of planning governing the actions of all the people and institutions concerned. On the other hand, the regulation by market forces that has spread all over the world and to all material and non-physical goods and has been widely practised over the past twenty years, has also revealed its limitations and dangers. Parliamentary political systems at the national level and multi-state organizations at the international level, often reveal themselves to be lacking in ideas and regulatory instruments enabling them to deal with imbalances, conflicts and even war, which although often extremely localized, pose a threat to the entire world order. One of the most important challenges facing us is thus that of reconciling the basic tenets of international public law such as the freedom of sovereign states, with the need for 'global governance'.